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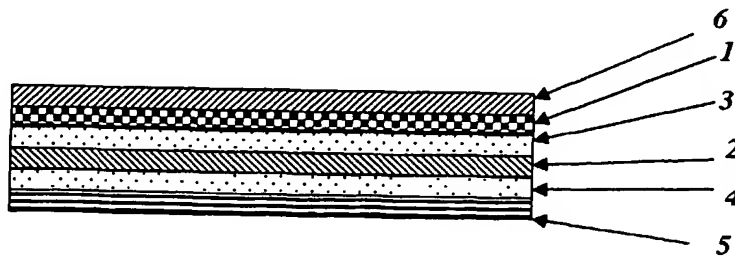
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For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

(54) Title: DEVICES FOR RELEASING VOLATILE SUBSTANCES AND METHODS OF PRODUCING THE DEVICES



(57) Abstract: Embodiments of the
invention are directed toward devices for
emitting a volatile substance, and associated
methods of producing such devices. In
one embodiment, the delivery device for a
volatile substance includes an active layer
(1) that is created from a dried polymer
solution that contains the volatile substance.
A release liner (6) is in direct contact with
the active layer, and covers a side of the
active layer. The polymer solution may

include thickeners, plasticizers, dyes, and preservatives. The devices may deliver volatile substances such as fragrances, masking odors, or therapeutic agents. Some embodiments of the invention are directed toward a patch by positioning a barrier layer (2) on the active layer (1); the barrier layer (2) may adhere to a surface, and isolate the surface from the active layer. Other embodiments are directed toward controlling the rate of delivery of the volatile agents from patches and other volatile delivery devices.

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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 A61L9/12 A61L9/04 A01M1/20 A61K9/70 A01N25/18
B32B7/04 B32B7/12

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EP0-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 98/17263 A (COPLEY PHARMACEUTICAL INC) 30 April 1998 (1998-04-30)	1-4, 19-30, 32-34, 38-53, 56-59, 68,69
Y	page 3, line 7 - page 13, line 27; figure 1; examples 1,2 ----- -/--	5-18, 60-67

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

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Date of the actual completion of the international search

5 August 2004

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 01/52823 A (KANIOS DAVID ; NOVEN PHARMA (US)) 26 July 2001 (2001-07-26) page 8, line 10 - page 30, line 17; figure 1; examples 1-9	1-4, 19-30, 32-35, 38-54, 56-58, 68,69
Y	----- page 2, line 10 - page 6, line 33; figure 1; example 1	36,55
X	WO 97/04758 A (CAL INT LTD ; BYRNE WILLIAM (IE); MCCAFFERTY DERMOT (IE)) 13 February 1997 (1997-02-13) page 2, line 10 - page 6, line 33; figure 1; example 1	1-4,19, 22, 26-30, 32,38, 39,42, 46-51, 56-58, 68,69
Y	----- WO 02/067677 A (LAVIPHARM SA) 6 September 2002 (2002-09-06) page 7, line 4 - page 9, line 30; examples 1-3	5,6, 8-18, 60-67
Y	----- WO 95/16754 A (MINNESOTA MINING & MFG) 22 June 1995 (1995-06-22) page 7, line 19 - page 7, line 34; figure 1	7
Y	----- EP 0 353 972 A (KENDALL & CO) 7 February 1990 (1990-02-07) column 5, line 39 - column 11, line 10; figures 2-9	8-10,14, 60,62,63
Y	----- WO 93/22996 A (AVERY DENNISON CORP) 25 November 1993 (1993-11-25) page 9, line 21 - page 13, line 25; figures 2-7	11-13, 15-18, 64-66
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INTERNATIONAL SEARCH REPORT

International Application No
PCT/US2004/005602

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>WO 93/00115 A (FISCHEL GHODSIAN FARIBA) 7 January 1993 (1993-01-07) the whole document</p> <p>-----</p>	<p>1-36, 38-69</p>

INTERNATIONAL SEARCH REPORT

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Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1 - 36, 38 - 69

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-36,38-69

The first invention is directed to a method of making an active layer comprising a polymer and a volatile substance, the active layer being formed on a release liner; and to devices and patches comprising the active polymer layer on the release liner.

2. claim: 37

The second invention is directed to a method of making an active layer comprising a polymer and a volatile substance, the active layer being formed on a side of a breathable layer which controls the rate of delivery of the volatile substance, the opposite side of the breathable layer being covered at least in part by a release liner.

3. claims: 70-74

The third invention is directed to a patch comprising multiple release liners for delivering a volatile substance at a controlled rate, the patch comprising an active layer having a volatile substance, at least two release liner segments covering one side of the active layer and a barrier layer disposed on an opposite side of the active layer from the at least two release liner segments.

4. claims: 75-81

The fourth invention is directed to a reduced adhesion patch for delivering a volatile substance, the patch comprising an active layer having a volatile substance, a barrier layer attached to the active layer and a fractional adhesion layer adjacent to an apposite side of the barrier layer from the active layer.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

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INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

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